

Bay Area and Delta

Alameda Creek – Alameda County

A flood control drop structure owned by the Alameda County Flood Control and Water Conservation District in lower Alameda Creek has blocked steelhead trout from spawning and rearing habitat in Sunol Regional Wilderness and other areas of the Upper Alameda Creek watershed since the 1960s. There are



Jeff Miller

numerous other structures in the creek that act as barriers or partial barriers to fish passage including:

East Bay Regional Park District Swim Dam prior to removal in 2001

three inflatable dams and water diversion structures in the lower creek's flood control channel, owned by the Alameda County Water District; 6-foot-high Niles Dam and 12-foot-high Sunol Dam in Niles Canyon owned by the San Francisco Public Utilities Commission; a PG&E gas-pipeline crossing; and two small, concrete swim dams in the Sunol Wilderness owned by the East Bay Regional Park District. In order to restore a steelhead fishery to Alameda Creek, modification for fish passage and protection at these facilities is being explored, as well as modification of county-owned culverts and a drop structure in Stonybrook Creek and Arroyo Mocho, both tributaries to Alameda Creek.

Alameda Creek

Structure Name	RM	Height (ft)	Width (ft)	Description	Fish passage facility	Passage?
BART weir	9.5	12		Concrete sloping drop structure	None	No
Middle Inflatable Dam	9.6	13	276	Seasonal, inflatable rubber dam	None	Passable when deflated
Upper Inflatable Dam	10.5	13	375	Seasonal, inflatable rubber dam	None	Passable when deflated
Niles Dam	11.9	6		Dam	Nonfunctional ladder	Observed passable at 233-397 cfs
Sunol Dam	16.3	22		Dam	Nonfunctional ladder	No
Natural Gas Pipeline	18.6	10		Sloping articulated concrete mat protecting 36 ft.	None	Barrier at all but the highest flows
Weir	19.7	6		Rock gabions 6 ft. high and 10 ft. deep	None	Passable at modest flows
Concrete swim dam # 1	23.8	7	88	Dam	None	No
Concrete swim dam # 2	24.0	7	63	Dam	None	No
Alameda Creek Diversion Dam	27.6			Dam diverts water to Calaveras Reservoir	None	No

Alameda Creek

Structure Name	RM	Height (ft)	Width (ft)	Description	Fish passage facility	Passage?
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Arroyo Mocho

Structure Name	RM	Height (ft)	Width (ft)	Description	Fish passage facility	Passage?
Drop Structure	0	2-3		Sloping structure and concrete apron	None	Probably passable at 10-12 cfs
Drop Structure	7.5	3-4		Vertical structure stabilizing a railroad bridge	Potential passage in a side channel.	No passage at 10-12 cfs. May be passable at higher flows.
Road Crossing	12	Sloping 20 ft. section		Concrete apron, 20-ft. steeply sloping section plus 20-ft. low gradient section	None	May be passable at 100-150 cfs

Community and agency support for restoring migratory fish runs has been building. In February 2000, the Alameda Creek Fisheries Restoration Workgroup released a report that concluded it would be feasible to restore a viable steelhead fishery to Alameda Creek. The study outlined the changes necessary to begin restoration and showed there is suitable habitat to support a self-sustaining population of steelhead trout. The report also identified items that required additional study, including the determination of instream flow requirements to support a steelhead fishery, and the source of water for these flow requirements.



SFPUC

Sunol Dam

In addition, considerable media attention and new environmental regulations concerning anadromous fish motivated management agencies to participate in the restoration. Participants include Alameda Creek Alliance, Alameda County Flood Control and Water Conservation District, Alameda County Water District, San Francisco Public Utilities



SFPUC

Niles Dam

Commission, PG&E, DFG, state Department of Water Resources, National Marine

Fisheries Service, East Bay Regional Park District, California State Coastal Conservancy, U.S. Army Corps of Engineers, city of Fremont, Zone 7 Water Agency, Bay Area Rapid Transit, Math/Science Nucleus, and Alameda County Supervisor Scott Haggerty.

Among the projects being developed, ACFC&WCD and ACWD are working closely with USACE to pursue 1135 Program funds for construction of fish passage improvements in the lower, channelized portion of the creek. A conceptual plan prepared by CH2MHill proposes three fish ladders and seven fish screens in the lower flood control channel. The estimated costs of the proposed fish facilities at the lower barriers, including engineering, mitigation for environmental impacts, construction inspection, and contract administration are \$1.5 million at the lower inflatable dam, \$2.9 million at the BART weir and middle inflatable dam, and \$1.4 million at the upper inflatable dam. The estimated cost of the seven fish screens is \$4.1 million. The total estimated cost of the proposed projects is \$9.9 million. If funds are procured construction is expected in 2005.

In addition, SFPUC announced in March 2000 that it would remove or modify Niles Dam, a partial barrier, and Sunol Dam, a significant barrier, in Niles Canyon. Due to sediment behind Sunol Dam an environmental assessment is needed. PG&E is also investigating alternatives to improve fish passage at its gas-pipeline crossing. PG&E would place a series of additional articulated concrete mats with backfill to regrade the site, construct a series of step pools in the middle of the existing structure, and build a traditional fish ladder.



Paul Salop

Bart Weir, Lower Alameda Creek

In August 2001, EBRPD removed two small swim dams in Sunol Wilderness at a cost of \$100,000. DWR shared the cost of removing the swim dams.



Paul Salop

Inflatable Dam, Lower Alameda Creek

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